

AERO Design Ltd.
2013 - 39th Ave. NE
Calgary, AB, T2E 6R7

AUTHORIZED RELEASE CERTIFICATE

TRANSPORT CANADA
TCCA 24-0078
AMF # 73-04

Product: Quick Release Forward Beam Part #: 69830-01
Approval #: SH00-48 Serial #: --
WO #: 2006-09 Quantity: 1
Eligibility: Bell 206L / 407 Work Status: Manufactured
Remarks: _____

I hereby certify that the product identified above has been manufactured in accordance with the applicable design data and the Canadian Aviation Regulations or applicable foreign regulations.

Sept 27/06
Date

Jeff Clarke
Inspector's Signature

AERO Design Ltd.
2013 - 39th Ave. NE
Calgary, AB, T2E 6R7

AUTHORIZED RELEASE CERTIFICATE

TRANSPORT CANADA
TCCA 24-0078
AMF # 73-04

Product: Quick Release Aft Beam Part #: 69831-01
Approval #: SH00-48 Serial #: --
WO #: 2006-09 Quantity: 1
Eligibility: Bell 206L / 407 Work Status: Manufactured
Remarks: _____

I hereby certify that the product identified above has been manufactured in accordance with the applicable design data and the Canadian Aviation Regulations or applicable foreign regulations.

Sept 27/06
Date

Jeff Clarke
Inspector's Signature

WORK ORDER 2006-09

Date opened: 21 August 2006

Project: Quick Release Cargo Basket Beams
Type: Bell 206L Series, 407

Batch Quantity: 1 Forward Beam Ass'y (69830-01)
1 Aft Beam Ass'y (69831-01)

Approval: SH00-48
Drawing List: DCL698-1

<u>Fabrication and Assembly Drawing(s)</u>	<u>Description</u>
69830, Rev. 1	Forward Beam Ass'y
69831, Rev. 1	Aft Beam Ass'y

Complete material tracking information on attached pages.

Work Order pre-completion Inspection:

Project is on Approval Limitation Record:	<u>Y ✓</u>
Document Control List revision level matches (or exceeds) STC:	<u>Y ✓</u>
Drawings revision levels match Document Control List:	<u>Y ✓</u>
Purchase order or Work order source is recorded for each part/ass'y:	<u>Y ✓</u>
Tests and inspections specifically called out on drawings are complete:	<u>Y ✓</u>
Release tags associated with all fabricated parts are attached:	<u>Y ✓</u>
All mounting hardware and supplies are included:	<u>Y ✓</u>

List all non-conformities raised: _____

Jeff Clark
Inspector Signature:

Sept 27/06
Date:

Drawing: 69830 Revision 1
 Assembly: 69830-01 Forward Beam Ass'y (Quick-Release)

Qty Per	Part #	Description	Material	P.O./W.O.	Checked
1 Total	69830-01	Forward Beam Assembly			
1	69830-03	Tube	CSA G40.21 50W, 1x2x0.125 tube	6055	
1	69830-04	Tube	CSA G40.21 50W, 1x2x0.125 tube	6055	
2	69830-05	Bushing	1018 Mild Steel, 5/8" Rod	951108	
1	69830-06	Strap	4130 Steel, 0.125" Sheet	6031	
1	69830-07	Hook	CSA G40.21 50W, 1x2x0.125 tube	6055	
2	69830-08	Hook Support	CSA G40.21 50W, 1x1x0.125 angle	6053	
1	69830-09	Cap	1018 Mild Steel, 0.025" Sheet	9506142	
1	69830-10	Cap	1018 Mild Steel, 0.025" Sheet	9506142	
1	69830-11	Guide	304 Stainless, 3/4" x 0.058" Rnd. Tube	6049	
1	69830-21	Stop	6061-T6 Aluminum, 5/8" Rod	6061	
1	69830-22	Knob	6061-T6 Aluminum, 3/4" Rod	3005	
1	69830-23	Spring	15mm x 70 mm Spring	6063	
1	#10-32	Screw	Stainless Steel, Commercial	6069	
1	MS21044C3	Nut		1013	

Processes	Per	Mat'ls Used	Inspection	Signature
Welding	AMS 2685C	Welding Rod ER70S-2, AMS 5680A		<i>David [Signature]</i>
Powder Coat	Drawing 69830	PO 6072	✓	<i>Jeff Clarke</i>
Final Inspection	Drawing 69830		✓	<i>Jeff Clarke</i>

Tag incomplete parts with Work Order # when stored between processes.

Tag complete parts / assemblies with Release Tag prior to storage.

Drawing: 69831 Revision 1
 Assembly: 69831-01 Aft Beam Ass'y (Quick-Release)

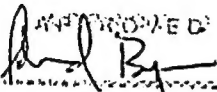
Qty Per	Part #	Description	Material	P.O./W.O.	Checked
1 Total	69831-01	Aft Beam Assembly			
1	69831-03	Tube	CSA G40.21 50W, 1x2x0.125 tube	6055	
1	69831-04	Tube	CSA G40.21 50W, 1x2x0.125 tube	6055	
1	69831-05	Tube	CSA G40.21 50W, 1x2x0.125 tube	6055	
2	69830-05	Bushing	1018 Mild Steel, 5/8" Rod	951108	
1	69830-06	Strap	4130 Steel, 0.125" Sheet	6031	
1	69830-07	Hook	CSA G40.21 50W, 1x2x0.125 tube	6055	
2	69830-08	Hook Support	CSA G40.21 50W, 1x1x0.125 angle	6053	
1	69830-09	Cap	1018 Mild Steel, 0.025" Sheet	9506142	
1	69830-10	Cap	1018 Mild Steel, 0.025" Sheet	9506142	
1	69830-11	Guide	304 Stainless, 3/4" x 0.058" Rnd. Tube	6049	
1	69830-21	Stop	6061-T6 Aluminum, 5/8" Rod	6061	
1	69830-22	Knob	6061-T6 Aluminum, 3/4" Rod	3605	
1	69830-23	Spring	15mm x 70 mm Spring	6063	
1	#10-32	Screw	Stainless Steel, Commercial	6069	
1	MS21044C3	Nut		1013	

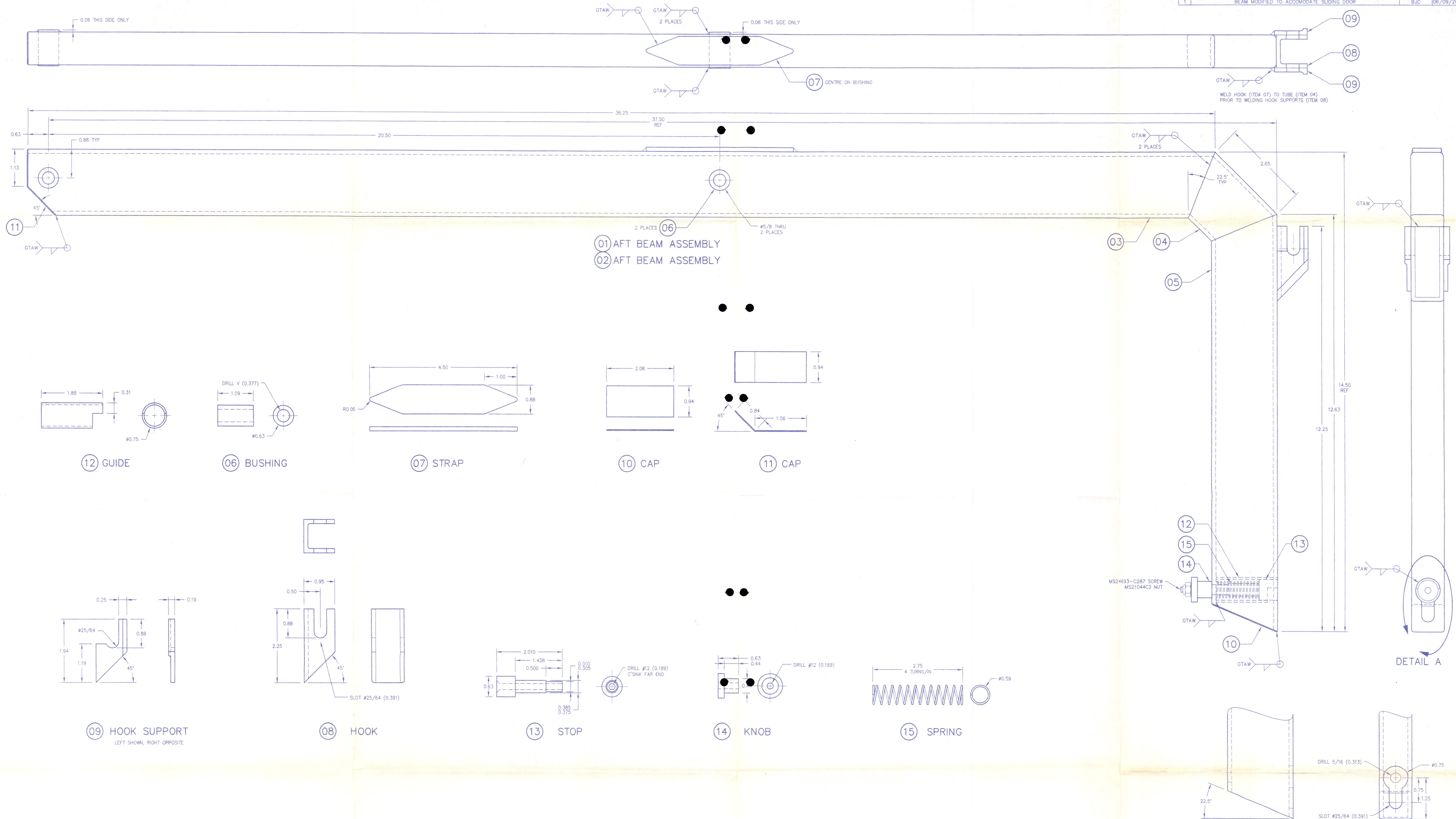
Processes	Per	Mat'ls Used	Inspection	Signature
Welding	AMS 2685C	Welding Rod ER70S-2, AMS 5680A	✓	<i>[Signature]</i>
Powder Coat	Drawing 69831	po 6072	✓	<i>[Signature]</i>
Final Inspection	Drawing 69831			<i>[Signature]</i>

Tag incomplete parts with Work Order # when stored between processes.

Tag complete parts / assemblies with Release Tag prior to storage.

DOCUMENT CONTROL LIST

DOCUMENT NO.	DOCUMENT CONTENT	REVISION
FABRICATION DOCUMENTS		
69830 69831	Forward Beam Fabrication Aft Beam Fabrication	1 1
ENGINEERING DOCUMENTS		
ER698.02 TP698.03	Engineering Report Test Plan	0 0
<div>APPROVAL</div> <div><div><div>Transport Canada</div><div>5. INROGIEV</div><div>DATE</div><div>APPROVED</div><div>By </div><div>51600-118</div><div>08 DEC 2006</div><div>S</div><div>09 JUNE 2006</div><div>THIS DOC APPROVED</div><div>26 SEPT 2006</div></div><div><div>ORIGINAL DATE:</div><div>3 May, 2006</div><div>REVISION DATE:</div><div>21 September, 2006</div></div><div><div>SHEET 1 OF 1</div><div>Quick Release Mounting Beams</div></div><div><div>DCL698-2</div><div>Rev.</div><div>1</div></div></div>		

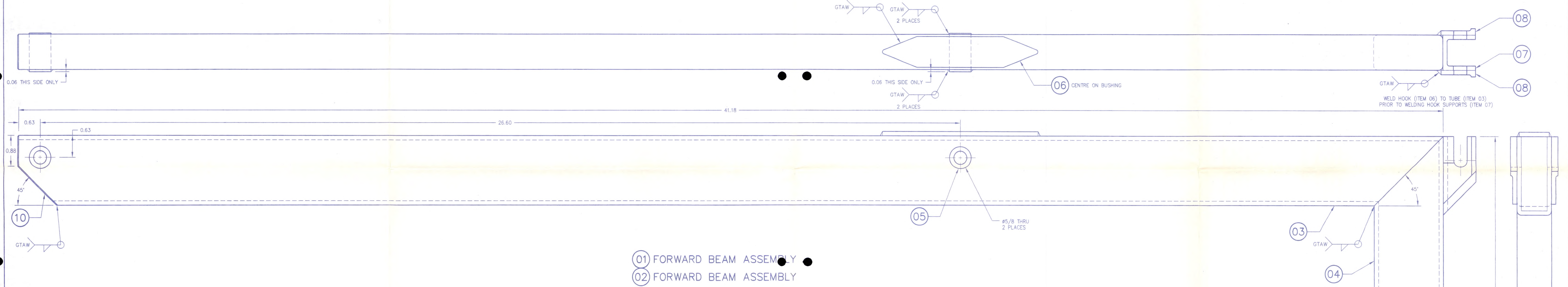


NOTES

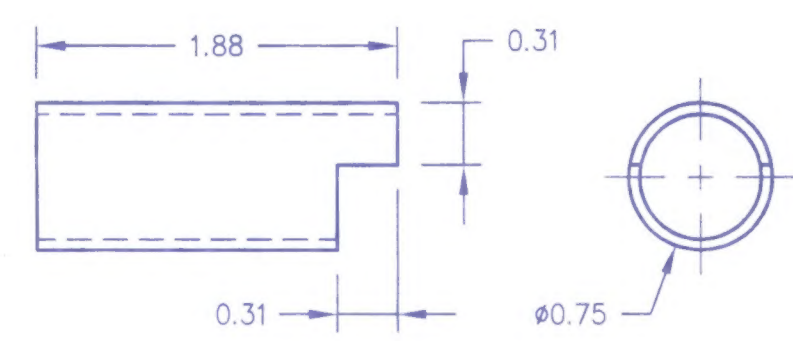
1. REMOVE ALL BURRS AND BREAK SHARP EDGES.
2. WELDING OF STEEL TO BE COMPLETED BY GTAW METHOD TO AWS2685C.
WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT FOR 4130/HSS STEEL.
WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT FOR STAINLESS STEEL.
3. ALL STEEL PARTS TO BE THOROUGHLY DEGREASED AND POWDER COATED PRIOR TO ASSEMBLY.
4. AFT BEAM ASSEMBLY (69831-02) MAY BE USED AS A DIRECT REPLACEMENT FOR AFT BEAM ASSEMBLY (69831-01).

[illegible]

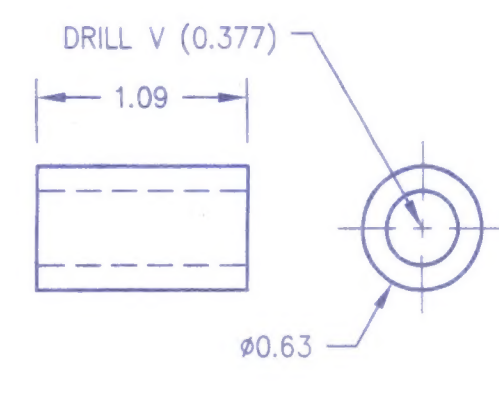
APPROVALS		DATE		AERO DESIGN LTD. CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, D8R 200M 2019 - 39TH AVENUE N.E., CALGARY, ALBERTA, CANADA, T2E 0R7 tel: (403) 260-8037 fax: (403) 260-8038 aerodesign@shawcable.net	
DRAWN: JEFF CLARKE		06 APR 2006			
CHECKED: E. BURGION					
UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN INCHES, TOLERANCES ON:					
DECIMALS:		ANGLES:		BELL 206L / 407 QUICK RELEASE CARGO BASKET RAFT BEAM FABRICATION	
X.XXX ±0.010		±1/2"			
X.XX ±0.03					
X.X ±0.1					
SHEET 1 OF 2		SCALE 1 : 1		DWG. SIZE DWG. NO. REV.	
		A0		69831 1	



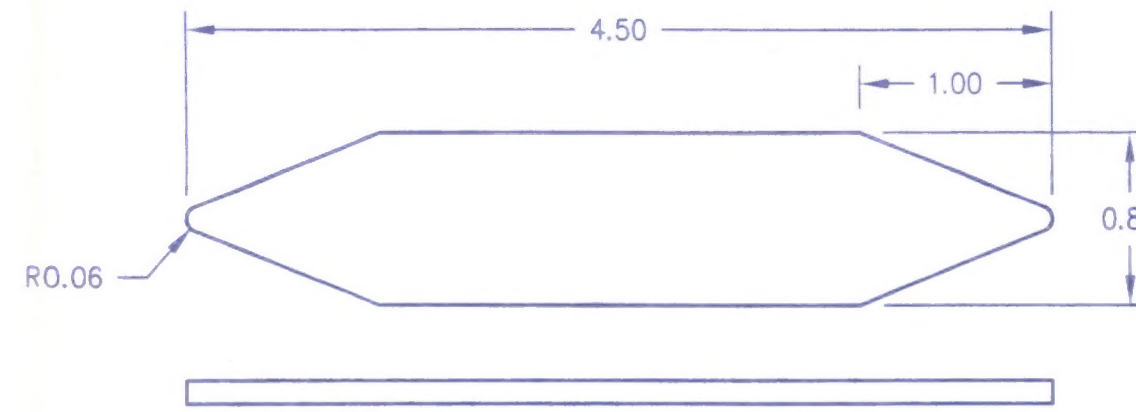
01 FORWARD BEAM ASSEMBLY
02 FORWARD BEAM ASSEMBLY



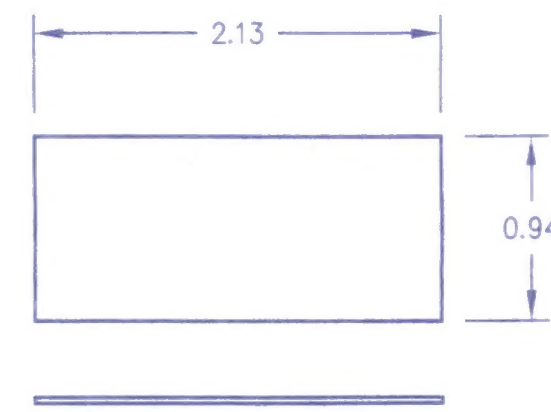
11 GUIDE



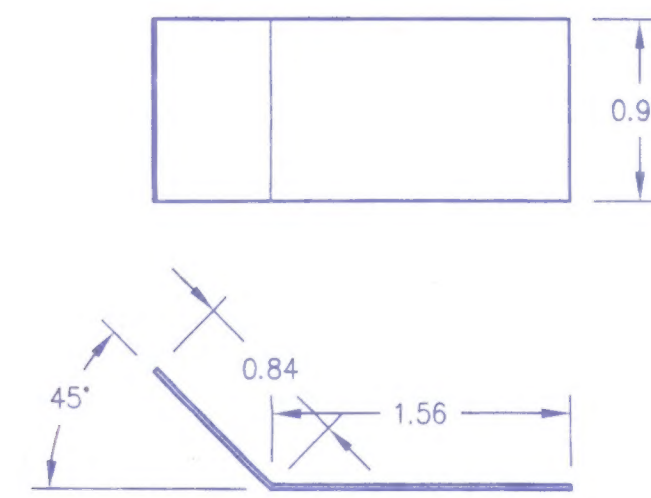
05 BUSHING



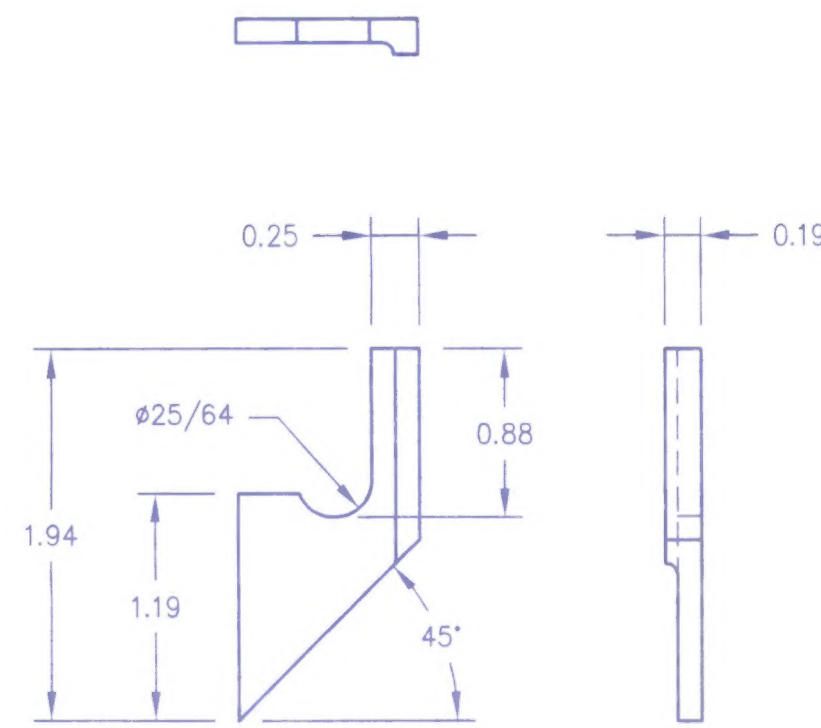
06 STRAP



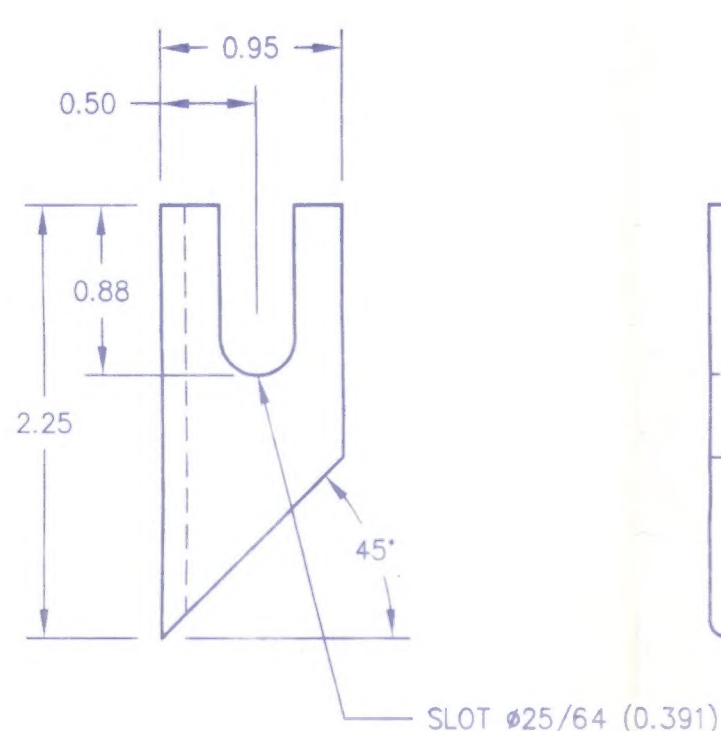
09 CAP



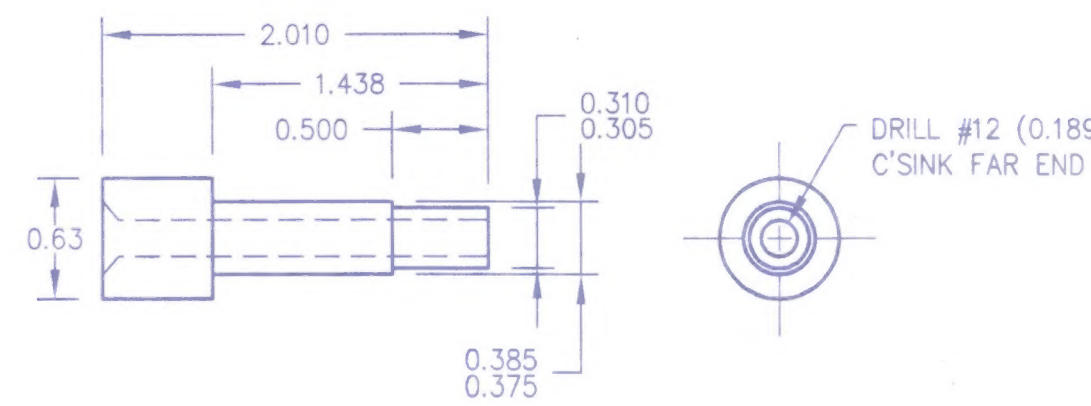
10 CAP



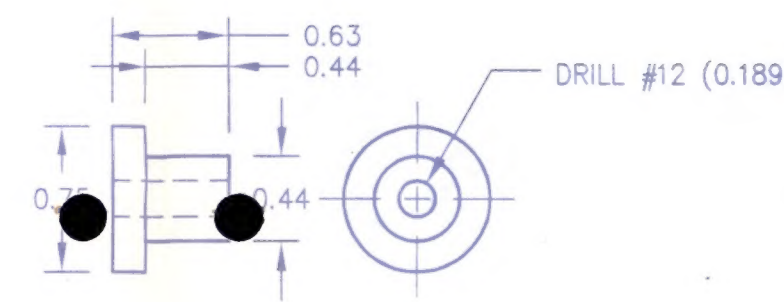
08 HOOK SUPPORT



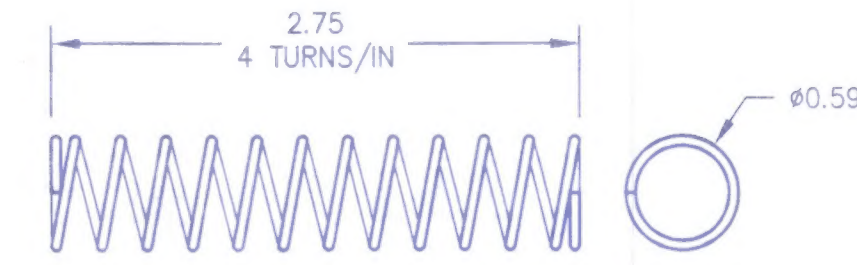
07 HOOK



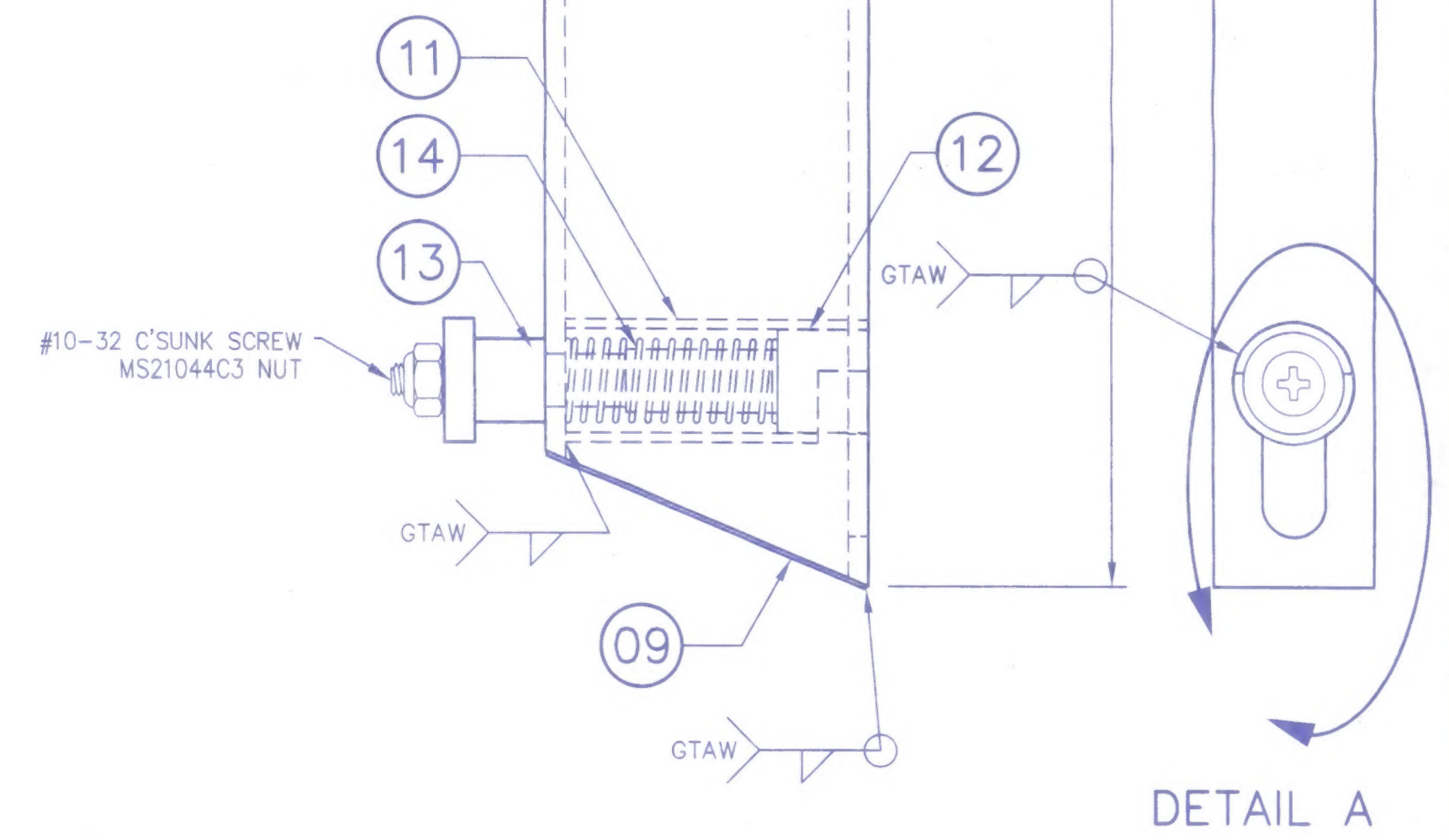
12 STOP



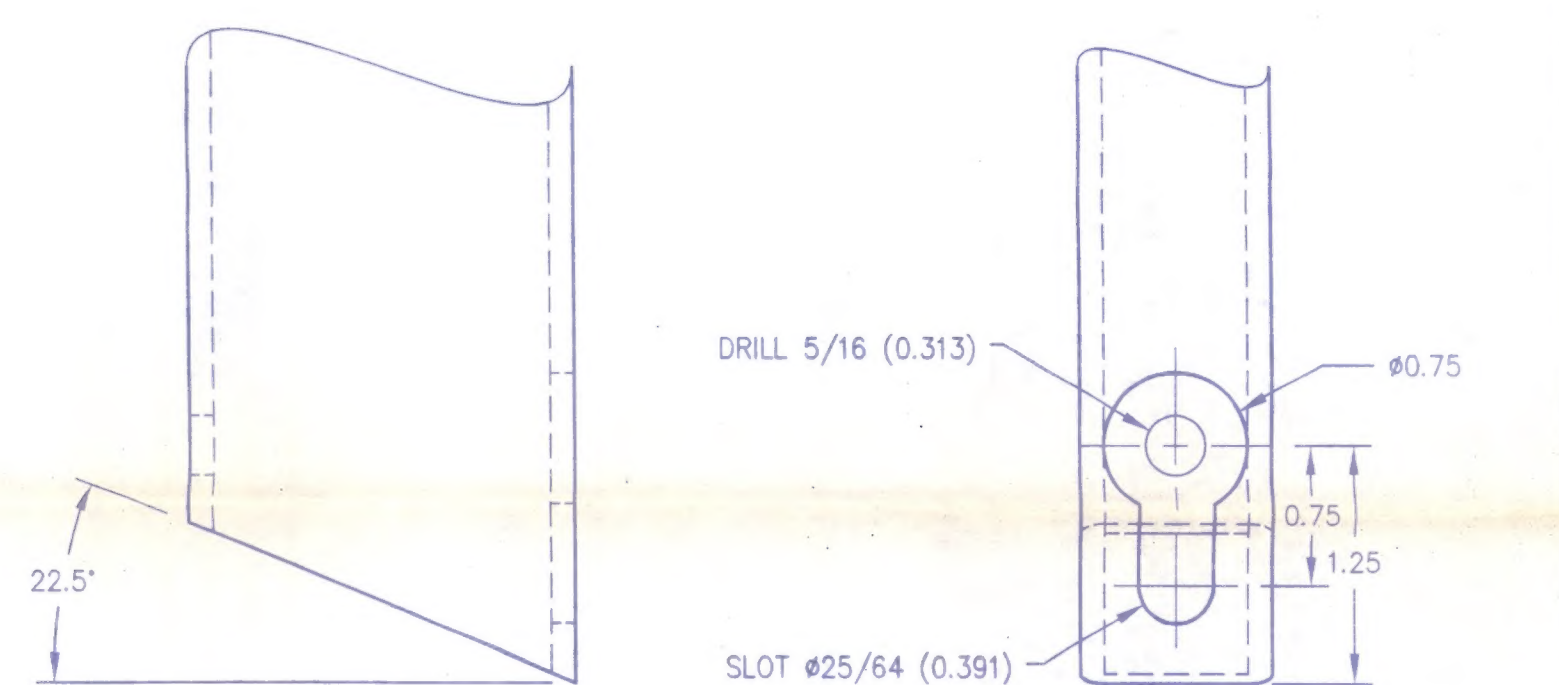
13 KNOB



14 SPRING



DETAIL A



DETAIL A
LOOKING AT KEYWAY
PRIOR TO ASSEMBLY

NOTES

- REMOVE ALL BURRS AND BREAK SHARP EDGES.
- WELDING OF STEEL TO BE COMPLETED BY GTAW METHOD TO AMS2485C. WELDING ROD SHALL CONFORM TO ER70S-2 OR EQUIVALENT FOR 4130/HSS STEEL. WELDING ROD SHALL CONFORM TO ER308L OR EQUIVALENT FOR STAINLESS STEEL.
- ALL STEEL PARTS TO BE THOROUGHLY DEGREASED AND POWDER COATED PRIOR TO INSTALLATION.
- FORWARD BEAM ASSEMBLY (69830-02) MAY BE USED AS A DIRECT REPLACEMENT FOR FORWARD BEAM ASSEMBLY (69830-01).

QTY	QTY	PART NO.	ITEM	DESCRIPTION	MATERIAL	MATERIAL SPEC	STOCK SIZE
1	1	MS21044C3	NUT		STAINLESS STEEL	COMMERCIAL	
1	1	#10-32	C'SUNK SCREW		STAINLESS STEEL	COMMERCIAL	18mm X 70mm SPRING
1	1	69830-23	14	SPRING	COMMERCIAL	18mm X 70mm SPRING	
1	1	69830-22	13	KNOB	6061-T6 ALUMINUM	QC-A-200/8	#0.75 ROD
1	1	69830-21	12	STOP	6061-T6 ALUMINUM	QC-A-200/8	#0.625 ROD
1	1	69830-11	11	GUIDE	304 STAINLESS STEEL	ASTM A269	#0.75 X 0.058 RND. TUBE
1	1	69830-20	10	CAP	321 STAINLESS COND. A	AMS 5510	0.025 SHEET
1	1	69830-10	10	CAP	4130 STEEL COND. N	MIL-S-18729	0.025 SHEET
1	1	69830-19	09	CAP	321 STAINLESS COND. A	AMS 5510	0.025 SHEET
1	1	69830-09	09	CAP	4130 STEEL COND. N	MIL-S-18729	0.025 SHEET
1	1	69830-18	08	HOOK SUPPORT	HSS STAINLESS STEEL	CSA G40.21 50W	1.0 X 1.0 X 0.125 ANGLE
1	1	69830-08	08	HOOK SUPPORT	HSS STEEL	CSA G40.21 50W	1.0 X 1.0 X 0.125 ANGLE
2	2	69830-17	07	HOOK	304 STAINLESS STEEL	ASTM A554	1 X 2 X 0.125 TUBE
2	2	69830-07	07	HOOK	HSS STEEL	CSA G40.21 50W	1 X 2 X 0.125 TUBE
1	1	69830-16	06	STRAP	304 STAINLESS STEEL	MIL-S-5089	0.100 SHEET
1	1	69830-06	06	STRAP	4130 STEEL COND. N	MIL-S-18729	0.125 SHEET
1	1	69830-15	05	BUSHING	304 STAINLESS STEEL	ASTM A479	#0.625 ROD
1	1	69830-05	05	BUSHING	MILD STEEL	AISI 1010/1020	#0.625 ROD
1	1	69830-14	04	TUBE	304 STAINLESS STEEL	ASTM A554	1 X 2 X 0.125 TUBE
1	1	69830-04	04	TUBE	HSS STEEL	CSA G40.21 50W	1 X 2 X 0.125 TUBE
1	1	69830-13	03	TUBE	304 STAINLESS STEEL	ASTM A554	1 X 2 X 0.125 TUBE
1	1	69830-03	03	TUBE	HSS STEEL	CSA G40.21 50W	1 X 2 X 0.125 TUBE
1	1	69830-02	02	FORWARD BEAM ASSEMBLY (STAINLESS STEEL)			
1	1	69830-01	01	FORWARD BEAM ASSEMBLY			

LIST OF MATERIALS - STEEL BEAM

APPROVALS	DATE
DRAWN: JEFF CLARKE	06 APR 2006
CHECKED: E. BURGON	

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES. TOLERANCES ON:	DECIMALS	ANGLES
X.XXX	±0.010	±1/2°
X.XX	±0.03	
X.X	±0.1	

SCALE 1 : 1	DWG. SIZE	DWG. NO.	REV.
SHEET 1 OF 1	A0	69830	1

AERO DESIGN LTD.
CONSULTING ENGINEERS, TRANSPORT CANADA APPROVALS, DAR 290M
2013 99TH AVENUE N.E., CALGARY, ALBERTA, T2E 0P7
tel: (403) 850-8067 fax: (403) 850-8833 aerodesign@telusplanet.net

BELL 206L / 407
QUICK RELEASE CARGO BASKET
FORWARD BEAM FABRICATION